

UNIVERSITI TEKNOLOGI MARA

**SMART OFFICE AUTOMATION
SYSTEM**

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ABSTRACT

In organization, an annual report which within all their data repository is one of the activities need to be served of a solution focus on online reports. Therefore, companies in this Malaysia can applied on this concept to improve energy efficient and comfortable environment in their workplace. Next, the problem is most company have problem controlling the lighting in the office which can increase the usage of electricity and how can the office can produce a comfortable environment in the office. The aim of the project is to design a smart office system that can control everything in the office automatically. The system that will be control automatically are the air conditioning units and lighting of a workplace. In this project, the fan will act as an air conditioning units and LED will act as a lighting. The sensors also can be control using a website that been developed using php in raspberry Pi. For Arduino, it will be the microcontroller to output the temperature and humidity of surrounding. For security purpose in the workplace, the IR sensor in Arduino will detect movement of user that away from the computer and automatically lock the user's computer. The system is running along with the software that been design using "Processing v3.3.7". Therefore, smart office system is develop using raspberry pi and Arduino.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

This chapter will provide a general introduction about the project, description for the problem statements with current situation that resulted into the formulation of project, the aim of the project, the objective of the project, project scope, and the significance of the proposed project. This chapter is important to understand the whole project.

1.2 PROJECT BACKGROUND

Nowadays most of the people spend a lot of time in the offices. Office environment should be improved so that the employees can increase their productivity and efficiency in working. Comfort in an office is very important for them to feel comfortable and energetic when doing their work. It is not a miracle but just an innovative thinking and new technology that best fits people's needs and to solve problem.

A smart office requires connectivity between all the systems and equipment in a building. It helps the office managers to virtualize information and make precise decisions. The smart office can be made by using various strategies such as the centralized control of a building's different sub-system for example lighting, heating, and physical security system.